"...the sea-bound coast"

# Annual Report 1982-83

nova scotia power corporation

## Cover

The 14 employee social clubs across the province play an important part in the lives of employees and their families. From bridge to bowling, from children's parties to hockey tournaments — these clubs offer wide ranging activities which foster a spirit of friendship, competitiveness and good old-fashioned fun.

This year's annual report features the results of one such program — the Megawatt Club's employee photo contest. The five winning photos are featured.

Front Cover: Atze Douma, Design & Construction

Inside Flap: Bob Creighton, System Planning

Back Cover: Betsy Carnaghan, Controller's
Bob Creighton
Donald Morrison, Data Processing

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## Corporate Information

### Board of Directors 1982/83

Allan F. Bruce
*Truro*

Louis R. Comeau
*Church Point*

C. J. (Jake) Creighton
*Dartmouth*

Robert A. Damery
*Bridgewater*

Lloyd K. Hill
*Port Williams*

G. Douglas Macdonald
*New Glasgow*

Joseph A. F. Macdonald, Q.C.
*Halifax*
*Chairman*

James G. MacDonald
*Sydney*

G. James McCulloch
*Halifax*

Cecil S. Smith
*Liverpool*

M. Barbara Walker
*Halifax*

### Officers 1982/83

Louis R. Comeau
*President and Chief Executive Officer*

Gordon D. Mader
*Senior Vice-President*

Robert C. Fraser
*Vice-President and Chief Financial Officer*

Kenneth W. McGrail
*Vice-President, Corporate and Public Affairs*

Daniel G. Brown
*Vice-President, Planning*

Leonard J. Sweett
*Vice-President, Operations*

Aubrey T. Jeffries
*Vice-President, Personnel and Administration*

Edward A. LeBlanc, Q.C.
*Secretary and General Counsel*

**Head Office:**
*Scotia Square*
*1894 Barrington Street*
*Halifax, Nova Scotia*
*Telephone 902-424-6230*
*Telex 019-21736*

**Mailing Address:**
*Post Office Box 910*
*Halifax, Nova Scotia*
*B3J 2W5*

**Zone Headquarters:**
**Western —**
*Milton, Queens County*

**Halifax —**
*Lakeside, Halifax County*

**Central —**
*Stellarton, Pictou County*

**Eastern —**
*Sydney, Cape Breton County*

**Auditors:**
*Peat, Marwick, Mitchell & Co.*
*Halifax*

**Bankers:**
*Bank of Nova Scotia*
*Royal Bank of Canada*

**Solicitors:**
Cox, Downie & Goodfellow
*Halifax*

**Transfer Agent and Registrar:**
*Banking and Corporate Trust Dept.*
*Nova Scotia Power Corporation*

84- 3028 /

# Annual Report 1982-83

nova scotia power corporation

## Historical Comparisons

| | Number of Customers | Number of Employees | Fixed Assets (Millions of $) |
|---|---|---|---|
| 1974 | 261,000 | 2,195 | 479 |
| 1975 | 272,700 | 2,276 | 533 |
| 1976 | 282,273 | 2,364 | 630 |
| 1977 | 290,244 | 2,482 | 739 |
| 1978 | 296,084 | 2,536 | 882 |
| 1979 | 303,456 | 2,568 | 1,015 |
| 1980 | 310,759 | 2,578 | 1,109 |
| 1981 | 323,014 | 2,548 | 1,143 |
| 1982 | 328,856 | 2,568 | 1,229 |
| 1983 | 334,205 | 2,521 | 1,380 |

Joseph A. F. Macdonald, Q.C.
*Chairman*

TO: His Honour
The Honourable John E. Shaffner
Lieutenant-Governor of Nova Scotia

Sir:

I have the honour to submit herewith the sixty-third Annual Report of the Nova Scotia Power Corporation, together with financial statements for the fiscal year ended March 31, 1983.

After the application of substantial financial assistance from your Government, the Corporation experienced an operating loss of $1.5 million. This result is a significant improvement over the $16.3 million loss of one year ago and is due in no small measure to restraint practiced by the Corporation and strenuous efforts by employees and management to increase productivity and efficiency.

These efforts will continue, as will the Corporation's program to reduce to a minimum its dependence in imported petroleum for generation purposes.

Of particular note this year has been the gratifying improvement in the Corporation's safety record; an improvement which earned the Corporation the Canadian Electrical Association's Safety Achievement Award for the past year.

On March 1st, 1983, the Corporation welcomed the appointment of Mr. Louis R. Comeau as its new President. I am confident that his experience and leadership will be of benefit to the Corporation, its customers and, indeed, all citizens of the Province.

Respectfully submitted.

Joseph A. F. Macdonald, Q.C.
Chairman

## President's Report

Total in-province energy sales declined in fiscal '83 from the previous year, reflecting the serious recession experienced in this province as elsewhere. Sales of 5 794 084 000 kilowatt hours were down 0.52%. Although some increase in revenue was provided the Corporation through an increase in approved rates effective January 1, 1983, given that the new rates applied for the fourth quarter only, total revenues from electric operations increased by 4.41%

On the other hand, through a combination of restraint and substantial productivity and efficiency gains, total costs increased by only 4.05%. Of particular note is the fact that our general operating costs, which include salaries, wages, operating and maintenance materials and supplies, increased over the previous year by less than one-tenth of one per cent — no small achievement in this inflationary period.

The rate increase approved by the Board of Commissioners of Public Utilities was the first increase granted the Corporation since July, 1979. With the application of grants from the Province of Nova Scotia, the Corporation's net loss amounted to $1.5 million, compared with $16.3 million the previous year. As of December, 1982 direct provincial support of Corporation costs was largely terminated.

The productivity successes of the past year were seen in several areas: we were able to operate with 47 fewer employees than in 1981-82, notwithstanding the fact that we acquired over 5 000 additional customers; efficiency of the Corporation's thermal generating stations reached an all time high, with the lowest heat rate in history; our coal-fired units were available for longer periods than were anticipated; improvement in our safety record was such that the Corporation was honoured by the Canadian Electrical Association for reducing its accident frequency rate by over 40%; new cost effective office management systems were introduced; the Corporation and its unionized employees agreed to new contracts limiting wage increases to 6% and similar salary programs were introduced for non-union personnel.

Given the realization of the relative stability, currently foreseen, in fuel costs, and interest rates together with a continuance of gains in the fight against inflation, a favourable operating result is anticipated for the next year. However, beyond fiscal '84, further rate increases will be required, the extent of which are somewhat difficult to determine at this time. The

Louis R. Comeau

*President and Chief Executive Officer*

"off-oil" program, which the Corporation has pursued now for some years, continues. As a major further step, in calendar 1984, we will bring into service two additional 150 MW coal-fired units at the Lingan generating station. Our dependency on petroleum fuels for the generation of electricity will then be reduced to a level of less than 15%, and decreased fuel costs should result. Required future rate increases will be, for the most part, dependent on the price which the Corporation must pay for coal fuel. New coal prices which will become effective January 1, 1984 and which will apply for some years into the future, are currently under negotiation with the Cape Breton Development Corporation.

The Corporation recognizes the necessity to restrict increases in the price of its product to the lowest possible levels and will continue its efforts toward that end by every possible means.

There remains some uncertainty regarding Atomic Energy of Canada Limited's plans for the future operation of their heavy water plants at Point Tupper and at Glace Bay. This, in turn, impacts our planning for the operation of our two plants which supply steam to those AECL facilities. Our contract with Gulf Canada Limited, for the supply of fuel oil to our Point Tupper Plant, terminated effective March 31, 1983. Meanwhile, an interim arrangement has been negotiated with Gulf for the use of terminaling facilities at Point Tupper and fuel oil will be purchased on a cargo basis until the requirements for continued service to AECL at that location become more definite.

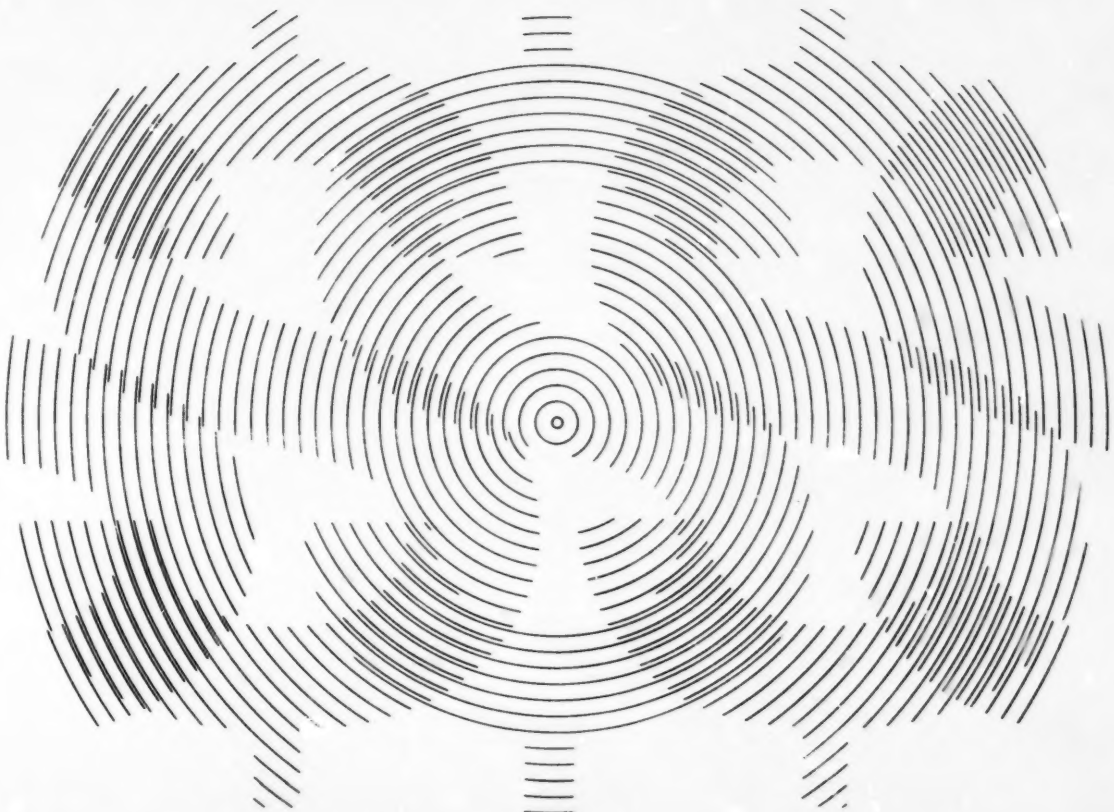
As a part of our ongoing program aimed at the reduction of our dependence on oil-fired generation, we continue investigations to identify opportunities for small hydro development, where a positive cost/benefit can be demonstrated. The Bloody Creek project, which provides for pumped diversion from that flowage into the headwater flowage of the Paradise plant, went into service in December 1982. As of the fiscal year end, the new 3.0 MW Fourth Lake plant was approaching completion, and is expected to go into service during the first quarter of next year.

Work on the 20 MW Annapolis Tidal Power project, which the Corporation is constructing on behalf of the Tidal Power Corporation, progressed well throughout the year. At fiscal year end, erection of the unit was in its final stages with commissioning scheduled for the summer of 1983.

The existence of an all-out team effort, so necessary in an operation such as ours, is apparent as I visit the various service areas of the Corporation. This, together with the accomplishments of the past year, is no doubt due to the dedicated effort of Les Kirkpatrick, our former President and Gordon Mader, Senior Vice-President, who served so diligently as Acting Chief Operating Officer.

On their behalf, and for myself, I wish to express my gratitude to the officers and employees of the Corporation for their assistance and to the Board of Directors for their guidance and support. I look to the future confident that we will successfully fulfill our mandate to operate a highly efficient organization dedicated to producing electricity at the lowest possible cost and at the same time making our contribution to the socio-economic well-being of the Province.

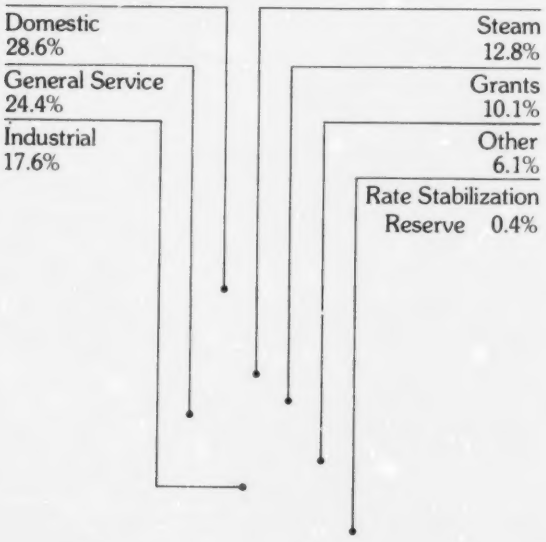
President and Chief Executive Officer



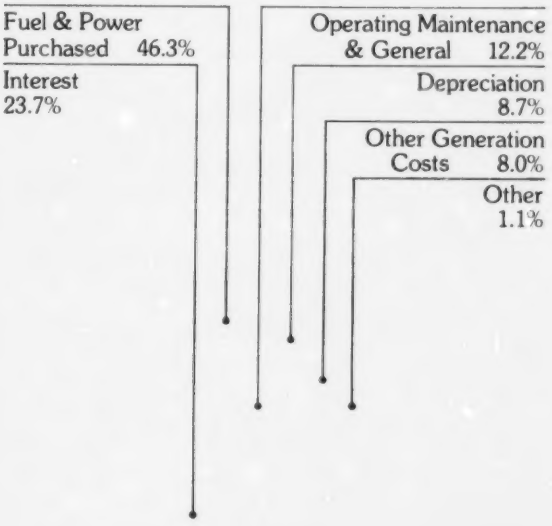
## Financial Statistics

| | 1983 | 1982 | Per Cent Change |
|---|---|---|---|
| | (in thousands) | | |
| Electric Revenue | **$316,000** | $301,219 | 4.9 |
| Steam Revenue | **53,439** | 48,905 | 9.3 |
| Total Cost of Operations | **318,058** | 307,205 | 3.5 |
| Fuel | **189,877** | 171,819 | 10.5 |
| Purchased Power | **3,071** | 7,644 | (59.8) |
| Depreciation | **36,472** | 39,175 | (6.9) |
| Interest | **98,984** | 89,839 | 10.2 |
| Net Proceeds from Long Term Borrowing | **187,007** | 100,488 | 86.1 |
| Net Additions to Fixed Assets | **155,122** | 90,298 | 71.8 |
| Loss Before Grants | **43,756** | 43,118 | 1.5 |
| Net Loss | **1,501** | 16,313 | (90.8) |

### Providing for Expenses 1983 — $417 million




### Total Expenses 1983 — $417 million



## Financial Review

Fiscal 1982-83 was a period of severe restraint on expenditures by the Corporation accompanied by increased attention to productivity throughout the organization. These matters represented important elements of the Corporation's working environment. The major financial event of the period was the rate case heard by the Nova Scotia Board of Commissioners of Public Utilities during the autumn of 1982.

During the 1982 rate hearing, operating programs were subject to scrutiny by the Public Utilities Board but there were no recommended changes to the scope or direction of the programs. As a result of this case, the Corporation was authorized to implement a two stage, across the board electric service rate increase comprised of 18.3% on January 1, 1983 and an additional 12.5% on April 1, 1983.

During the year, electric sales volume decreased by 1.4%, mainly due to declines in sales to industrial customers. Sales to domestic and general service customers showed modest growth. Implementation of the first stage of the authorized rate increase on January 1, 1983 resulted in electric service revenue increasing by $14.8 million or 4.9% over the prior year.

Revenue from the sale of process steam rose $4.5 million as cost increases, principally fuel, were passed along to customers in accordance with contracted arrangements.

Cost of operations rose $10.9 million or 3.5% over 1981-82. Fuel, the largest single expense item, increased $18.1 million. The price of bunker oil leveled towards the end of the year, but upward price movements early in the year more than offset the record fuel use efficiency achieved by the Corporation. A significant decline in hydro generation from the record levels of 1981-82 also added to fuel expense by requiring fossil fuel based generation to replace hydro. The lower level of precipitation also restricted the availability of favourably priced purchased power which was $3.1 million in fiscal 1982-83, a decline of $4.6 million from the prior year.

Other generation costs, operating, maintenance and general expenses rose less than 0.1% over 1981-82. This was achieved by stringent cost restraint including restricted hiring. Total staff declined by 47 employees during 1982-83 to 2 521 at March 31, 1983.

In conjunction with the application for rate revisions, the Corporation applied for revised depreciation rates based on a study prepared by an independent specialist. The approval of the new rates reflected extended service life of several asset classes and resulted in a decline in depreciation expense from the prior year.

Interest expense was $99.0 million in 1982-83 an increase of $9.1 million or 10.2% from the prior year.

During the year, the Corporation negotiated two financings in the Canadian domestic market; the first, a $75 million, 16 3/4% extendable issue dated August 10, 1982, the second, a $100 million, 13 1/2% twenty year issue dated December 1, 1982. In addition, $15.6 million in medium term credit was arranged with suppliers of major components for Lingan Units 3 and 4.

Fixed asset spending in 1982-83 was $155 million as construction continued on Lingan generating Units 3 and 4 and related transmission assets. Lingan Unit 3 will add 150 megawatts of indigenous coal fired generating capacity in February 1984 with Unit 4 expected to be operational in October 1984 when a further 150 megawatts goes into service.

The loss before grants for the year of $43.8 million was accumulated prior to the January 1, 1983 rate increase. The loss was funded by grants from the Province of Nova Scotia of $42.3 million and an appropriation of $1.5 million from the Rate Stabilization Reserve.

## Auditors' Report

To the Board of Directors
Nova Scotia Power Corporation

We have examined the consolidated balance sheet of Nova Scotia Power Corporation as at March 31, 1983, and the consolidated statements of operations, retained earnings, rate stabilization reserve and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the Corporation as at March 31, 1983 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

Chartered Accountants

Halifax, Canada
June 3, 1983

## Consolidated Statement of Operations

for the year ended March 31, 1983 with comparative figures for 1982

| | 1983 | 1982 |
|---|---|---|
| | | (in thousands) |
| **Revenue** | | |
| Electric — note 6 | **$316,000** | $301,219 |
| Steam | **53,439** | 48,905 |
| Other | **3,847** | 5,121 |
| | **373,286** | 355,245 |
| **Cost of operations** | | |
| Power generated — fuel | **189,877** | 171,819 |
| — other | **33,389** | 33,494 |
| Power purchased | **3,071** | 7,644 |
| Operating, maintenance and general | **50,844** | 50,668 |
| Grants in lieu of taxes | **4,405** | 4,405 |
| Depreciation — note 7 | **36,472** | 39,175 |
| | **318,058** | 307,205 |
| Earnings before the following | **55,228** | 48,040 |
| Interest — note 8 | **98,984** | 89,839 |
| Amortization of Wreck Cove deferral | **—** | 1,319 |
| Loss before grants | **43,756** | 43,118 |
| Grants from Province of Nova Scotia | **42,255** | 26,805 |
| Net loss | **$ 1,501** | $ 16,313 |

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*

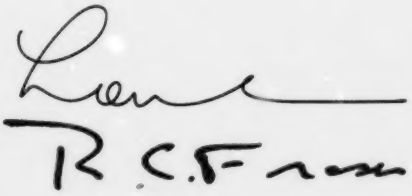
## Consolidated Balance Sheet

as at March 31, 1983 with comparative figures for 1982

### ASSETS

| | 1983 | 1982 |
|---|---|---|
| | | (in thousands) |
| Fixed assets | | |
| Property, plant and equipment in service | **$1,204,226** | $1,163,553 |
| Less accumulated depreciation | **348,802** | 316,661 |
| | **855,424** | 846,892 |
| Construction work in progress | **175,995** | 65,877 |
| | **1,031,419** | 912,769 |
| Current assets | | |
| Cash | **90** | 96 |
| Short-term investments at cost | **35,255** | 20,000 |
| Accounts receivable | **54,211** | 49,050 |
| Unbilled revenue | **34,255** | 28,514 |
| Inventories at cost | **60,802** | 42,586 |
| Prepaid expenses | **691** | 310 |
| | **185,304** | 140,556 |
| Long-term receivables | **8,065** | 8,502 |
| Deferred charges less amortization | | |
| Financing costs | **16,097** | 14,796 |
| Other | **839** | 1,238 |
| | **16,936** | 16,034 |
| | **$1,241,724** | $1,077,861 |

**APPROVED ON BEHALF OF THE CORPORATION**



President and Chief Executive Officer

Vice-President and Chief Financial Officer

## Consolidated Balance Sheet

as at March 31, 1983 with comparative figures for 1982

### LIABILITIES AND EQUITY

| | 1983 | 1982 |
|---|---|---|
| | (in thousands) | |
| Long-term debt | | |
| Notes | | |
| Province of Nova Scotia — note 1 | **$ 66,415** | $ 70,976 |
| Government of Canada — note 2 | **53,683** | 55,201 |
| Other | **15,797** | 1,155 |
| Bonds and debentures — note 3 | **1,095,998** | 928,964 |
| | **1,231,893** | 1,056,296 |
| Less | | |
| Payable within one year — note 4 | **21,782** | 21,615 |
| Sinking funds — note 5 | **101,527** | 81,550 |
| | **123,309** | 103,165 |
| | **1,108,584** | 953,131 |
| Current liabilities | | |
| Bank indebtedness | **2,012** | 3,243 |
| Accounts payable and accrued charges | **37,122** | 31,888 |
| Customers' deposits and accrued interest | **1,457** | 1,604 |
| Accrued interest on long-term debt | **36,720** | 31,060 |
| Long-term debt payable within one year | **21,782** | 21,615 |
| | **99,093** | 89,410 |
| Deferred credits | **3,751** | 3,523 |
| Equity | | |
| Contributed surplus | **13,327** | 13,327 |
| Rate stabilization reserve | **8,163** | 9,664 |
| Retained earnings | **8,806** | 8,806 |
| | **30,296** | 31,797 |
| | **$1,241,724** | $1,077,861 |

Commitments — note 10

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*

## Consolidated Statement of Retained Earnings

for the year ended March 31, 1983 with comparative figures for 1982

| | 1983 | 1982 |
|---|---|---|
| | (in thousands) | |
| Balance at beginning of year | $8,806 | $8,806 |
| Net loss | 1,501 | 16,313 |
| | 7,305 | (7,507) |
| Appropriation from rate stabilization reserve | 1,501 | 16,313 |
| Balance at end of year | $8,806 | $8,806 |

## Consolidated Statement of Rate Stabilization Reserve

for the year ended March 31, 1983 with comparative figures for 1982

| | 1983 | 1982 |
|---|---|---|
| | (in thousands) | |
| Balance at beginning of year | $9,664 | $25,977 |
| Appropriation to retained earnings | 1,501 | 16,313 |
| Balance at end of year | $8,163 | $ 9,664 |

*See accompanying summary of significant accounting policies and note to consolidated financial statements.*

## Consolidated Statement of Changes in Financial Position

for the year ended March 31, 1983 with comparative figures for 1982

| | 1983 | 1982 |
|---|---|---|
| | (in thousands) | |
| Source of working capital | | |
| Operations | | |
| Net loss | $ 1,501 | $ 16,313 |
| Items not requiring an outlay of funds | | |
| Depreciation | 36,472 | 39,175 |
| Amortization of deferred charges | 1,850 | 3,125 |
| | 36,821 | 25,987 |
| Decrease in long-term debt payable within one year | — | 13,520 |
| Proceeds from long-term borrowings less discount | 187,007 | 100,488 |
| Other transactions | 548 | 569 |
| | 224,376 | 140,564 |
| Use of working capital | | |
| Net additions to fixed assets | 155,122 | 90,298 |
| Repayment of long-term debt | 14,046 | 26,500 |
| Increase in sinking funds on long-term debt | 19,976 | 17,018 |
| Increase in long-term debt payable within one year | 167 | — |
| | 189,311 | 133,816 |
| Increase in working capital | 35,065 | 6,748 |
| Working capital at beginning of year | 51,146 | 44,398 |
| Working capital at end of year | $ 86,211 | $ 51,146 |

*See accompanying summary of significant accounting policies and notes to consolidated financial statements.*

## Summary of Significant Accounting Policies

March 31, 1983

### Consolidation

The consolidated financial statements include the accounts of Nova Scotia Power Corporation and its wholly-owned subsidiaries, Nova Scotia Light and Power Company, Limited and Eastern Light & Power Company Limited.

### Regulation

The Corporation is a crown corporation of the Province of Nova Scotia engaged in the production and sale of electric energy and steam, and is regulated by the Board of Commissioners of Public Utilities for the Province of Nova Scotia pursuant to the Public Utilities Act.

### Property, Plant and Equipment

The property, plant and equipment of the Corporation are recorded at original cost net of contributions in aid of construction. Expenditures for additions, replacements and improvements, which are comprised of direct labour, material, engineering, and related overhead costs, are capitalized whereas repairs and maintenance are charged to operations. Interest on funds used during construction is capitalized monthly at an interest rate which represents the effective cost of capital determined at the preceding fiscal year end. For property replaced or renewed the original cost plus removal cost less salvage is charged to accumulated depreciation.

The excess of the Corporation's investment over the book value of subsidiaries and acquired power utilities was $30,197,000. This amount is being amortized on a straight line basis over terms ranging from 11-30 years. At March 31, 1983, the unamortized value included in the fixed assets of the Corporation was $16,349,000.

Depreciation is provided for by the Corporation on a straight line basis, based on useful life. The estimated useful lives for the major categories of plant in service were revised effective April 1, 1982, following a study of the Corporation's depreciation rates, and are summarized as follows:

| Functions | Useful Life in Years |
|---|---|
| Hydraulic Generation | 63.6 |
| Steam Generation | 29.7 |
| Gas Turbine Generation | 23.8 |
| Transmission | 39.8 |
| Distribution | 29.4 |
| General Plant | 17.0 |

Depreciation expense for the year ended March 31, 1983 included $1,195,000 representing amortization of the excess of investment over book value of acquired utilities.

### Financing Costs

The Corporation amortizes the expenses, discounts, or premiums of securities issues to operations in equal amounts over the period to maturity or early maturity option of the issue to which they pertain.

### Foreign Exchange

Long-term debt repayable in foreign currencies, including long-term debt payable within one year, is translated to Canadian currency at the rate of exchange at time of issue. Realized exchange gains or losses are included with interest expense in the consolidated statement of operations.

Accrued interest on the long-term foreign debt is recorded at exchange rates prevailing at year end and the resulting unrealized exchange losses are included with interest expense in the consolidated statement of operations.

## 1. LONG-TERM NON-CALLABLE NOTES PAYABLE TO THE PROVINCE OF NOVA SCOTIA

| | 1983 | 1982 |
|---|---|---|
| | (in thousands) | |
| Loans made by the Province up to November 30, 1962 are repayable in equal annual installments including principal and interest, and mature on varying dates from 1988 to 2001. Included in these loans are notes of $4,330,000 which contain a provision to refinance the remainder of the loan balance on varying dates from 1983 to 1991 at a rate of interest then to be determined. The composite rate of interest for these loans is 8.88 per cent per annum (8.74% — 1982). | **$16,415** | $17,976 |
| Loans made by the Province after November 30, 1962 are repayable on a sinking fund basis with one-half of the loan payable in the twentieth year and the balance payable in the fortieth year, and mature on varying dates from 2007 to 2011. These loans contain a provision for refinancing on varying dates from 1990 to 1992 at a rate of interest then to be determined. The composite rate of interest for these loans is 7.69 per cent per annum (7.55% — 1982). | **50,000** | 53,000 |
| | **$66,415** | $70,976 |

## 2. LONG-TERM NON-CALLABLE NOTES PAYABLE TO GOVERNMENT OF CANADA

| | | |
|---|---|---|
| Loans from the Government of Canada are repayable in equal annual installments including principal and interest and mature on varying dates from 1992 to 2012. The composite rate of interest for these loans is 6.72 per cent per annum (6.71% —1982). | **$53,683** | $55,201 |

## 3. BONDS AND DEBENTURES

Nova Scotia Power Corporation debentures (guaranteed by Province of Nova Scotia)

| Serial Letter | Interest Rate % | Date of Maturity | | 1983 | 1982 |
|---|---|---|---|---|---|
| | | | | (in thousands) | |
| A | 5 5/8 | Mar. 1, 1992 | | $ 426 | $ 426 |
| B | 6 1/4 | Mar. 1, 1992 | | 2,500 | 2,500 |
| C | 7 | Mar. 1, 1992 | | 690 | 690 |
| D | 7 3/4 | Mar. 15, 1997 | (U.S. $40,000,000) | 39,889 | 39,889 |
| E | 8 1/8 | Nov. 15, 1992 | | 30,000 | 30,000 |
| F | 7 | Dec. 1, 1987 | (DM 55,000,000) | 17,129 | 20,244 |
| G | 8 1/8 | July 15, 1998 | (U.S. $30,000,000) | 29,961 | 29,961 |
| H | 8 1/4 | May 1, 1984 | (U.S. $ 4,000,000) | 3,927 | 3,927 |
| J | 8 3/8 | May 1, 1986-94 | (U.S. $23,500,000) | 22,929 | 22,929 |
| K | 9 1/2 | July 1, 1983-94 | | 3,752 | 5,480 |
| L | 10 1/2 | Sept. 15, 2000 | (U.S. $50,000,000) | 51,230 | 51,230 |
| M | 10 | Mar. 1, 2001 | | 50,000 | 50,000 |
| N | 6 3/4 | May 10, 1991 | (SF 78,950,000) | 31,037 | 31,037 |
| O | 9 3/4 | Oct. 21, 2001 | | 50,000 | 50,000 |
| P | 9 3/4 | Nov. 1, 2001 | | 5,000 | 5,000 |
| Q | 9 1/4 | Feb. 22, 2002 | | 50,000 | 50,000 |
| R | 9 1/4 | Feb. 22, 2002 | | 5,000 | 5,000 |
| S | 9 1/4 | July 21, 2002 | | 50,000 | 50,000 |
| T | 9 1/4 | July 21, 2002 | | 5,000 | 5,000 |
| U | 9.45 | Dec. 1, 2002 | | 15,000 | 15,000 |
| V | 9 3/8 | Jan. 10, 2003 | | 50,000 | 50,000 |
| W | 9 5/8 | June 1, 2008 | (U.S. $75,000,000) | 84,034 | 84,034 |
| X | 10 | Dec. 21, 1998 | | 50,000 | 50,000 |
| Y | 9 3/4 | May 15, 1989 | (U.S. $43,700,000) | 50,754 | 53,192 |
| Z | 11 1/4 | Jan. 4, 2000 | | 50,000 | 50,000 |
| AA | 11 1/2 | July 15, 2005 | | 50,000 | 50,000 |
| AB | 15 1/2 | Dec. 15, 1991-86 | | 75,000 | 75,000 |
| AC | 15 3/4 | Jan. 28, 1988 | | 25,000 | 25,000 |
| AD | 16 3/4 | Aug. 10, 1987-92 | | 75,000 | — |
| AE | 13 1/2 | Dec. 1, 2002 | | 100,000 | — |
| | | | | 1,073,258 | 905,539 |

Nova Scotia Light and Power Company, Limited first mortgage sinking fund bonds (now unsecured but guaranteed by the Corporation and Province of Nova Scotia).

| | | | | |
|---|---|---|---|---|
| | 5 3/4 | Apr. 1, 1984 | 6,979 | 7,238 |
| | 6 | Apr. 1, 1986 | 3,708 | 3,828 |
| | 8 1/2 | Apr. 15, 1991 | 9,953 | 10,224 |
| | | | 20,640 | 21,290 |

## 3. BONDS AND DEBENTURES (Continued)

Eastern Light & Power Company Limited first mortgage sinking fund bonds (now unsecured but guaranteed by the Corporation and Province of Nova Scotia)

| Serial Letter | Interest Rate % | Date of Maturity | 1983 | 1982 |
|---|---|---|---|---|
| | | | (in thousands) | |
| A | 5 3/4 | Jan. 2, 1985 | $ 2,100 | $ 2,125 |
| Caledonia Power and Water Board Serial debentures | | | | |
| | 5 3/4 | July 1, 1982 | — | 10 |
| | | | 2,100 | 2,135 |
| | | | $1,095,998 | $928,964 |

Bonds and debentures repayable in foreign currencies are translated to Canadian currency at the rate of exchange at time of issue. If the bonds and debentures repayable in foreign currencies were translated to Canadian currency at March 31, 1983 the total of $1,095,998,000 would be increased by $72,279,000 to $1,168,277,000 (At March 31, 1982, the total of $928,964,000 would have been increased by $76,879,000 to $1,005,843,000).

The bonds and debentures are redeemable as provided under the terms of the respective issues.

## 4. LONG-TERM DEBT MATURITIES

Long-term maturities and sinking fund requirements, including those in foreign currencies, in respect of long-term debt outstanding at March 31, 1983 are as follows:

| Year Ending March 31 | Canadian Equivalent at Time of Issue | Canadian Equivalent at March 31, 1983 |
|---|---|---|
| | (in thousands) | |
| 1984 | $ 21,782 | $ 25,207 |
| 1985 | 43,695 | 48,345 |
| 1986 | 28,949 | 32,656 |
| 1987 | 115,587 | 123,983 |
| 1988 | 115,658 | 120,287 |
| | $325,671 | $350,478 |

## 5. SINKING FUNDS

Sinking funds, including those in foreign currencies, consist of securities and cash held by the Corporation and trustees for the redemption of certain debt issues. Certain issues of bonds and debentures requiring annual redemption for sinking fund purposes provide that the Corporation may satisfy its obligation by purchasing bonds or debentures on the open market at any time prior to the due date at prices not exceeding 100% of the principal amount thereof. Bonds and debentures purchased during the year and not yet cancelled amount to $3,337,000. The gain resulting from these transactions is included in interest.

If the sinking funds in foreign currency were translated to Canadian currency at March 31, 1983, the total of $101,527,000 would be increased by $9,993,000 to $111,520,000. (At March 31, 1982, the total of $81,550,000 would have been increased by $7,906,000 to $89,456,000).

## 6. ELECTRIC REVENUE

Electric revenue includes payments from the Province of Nova Scotia, of rate assistance on behalf of Corporation customers, of $23,671,000 for the current year ($20,792,000 — 1982).

Electric service is provided to the Province of Nova Scotia and its agencies at the appropriate class rates as approved by the Board of Commissioners of Public Utilities for the Province of Nova Scotia.

## 7. CHANGES IN ACCOUNTING ESTIMATE — DEPRECIATION

In accordance with an order of the Board of Commissioners of Public Utilities for the Province of Nova Scotia, depreciation rates were revised effective April 1, 1982. The change in estimate, accounted for on a prospective basis, has resulted in depreciation expense being $4,550,000 lower than it would have been had the depreciation rates remained the same.

## 8. INTEREST

| | 1983 | 1982 |
|---|---|---|
| | (in thousands) | |
| Interest on long-term debt | **$115,374** | $ 91,841 |
| Amortization of financing costs | **1,363** | 1,311 |
| Interest on short-term borrowings | **657** | 2,387 |
| Foreign exchange loss | **8,860** | 8,229 |
| Other | **231** | 184 |
| | **126,485** | 103,952 |
| Less | | |
| Interest charged to construction | **10,501** | 2,398 |
| Sinking fund earnings | **10,525** | 7,178 |
| Other investment income | **6,475** | 4,537 |
| | **27,501** | 14,113 |
| | **$ 98,984** | $ 89,839 |

## 9. RELATED PARTY TRANSACTIONS

Related party transactions are disclosed elsewhere in the consolidated financial statements.

## 10. COMMITMENTS

(a) As at March 31, 1983, the Corporation was constructing generation, transmission and other facilities estimated to cost approximately $397 million of which approximately $174 million has been expended and an additional $70 million has been committed under contract.

(b) The Corporation is committed to operating leases of equipment and office premises which range in length from two to eight years. Minimum lease payments over the next three years will amount to $2.8 million annually. Lease expenses charged to operations during the current year were $3.1 million ($2.2 million — 1982).

(c) The Corporation's employees are covered by the Public Service Superannuation Plan of the Province of Nova Scotia under which contributions are made equally by the Corporation and the employees. Employees of Nova Scotia Light and Power Company, Limited became employees of the Corporation on April 1, 1973, at which time pension benefits under the Nova Scotia Light and Power Company, Limited pension plan were vested, subject to the requirements as to length of service, and such employees became members of the Public Service Superannuation Plan. The Corporation provides supplemental pension benefits to employees of other acquired utilities additional to those which are payable under the existing plans.

According to the most recent actuarial valuation, completed in November, 1981, $11 million of past service liability under the supplemental pension plan is unfunded. The annual amount required to fund all past service costs of the pension plan is $1 million for 20 years. For the year ended March 31, 1983, the Corporation has provided for this amount in the consolidated statement of operations.

## 11. COMPARATIVE FIGURES

Certain of the 1982 figures, presented for comparative purposes, have been reclassified to conform with the presentation adopted for the year ended March 31, 1983.

## Comparative Statistics

(For Twelve Month Period Ended March 31)

| | 1983 | 1982 | 1981 | 1980 | 1979 |
|---|---|---|---|---|---|
| **Electric Energy Generated & Purchased** | | | | | |
| (Thousand kW.h): | | | | | |
| Generated (net) | **6,240,901** | 6,194,731 | 6,407,474 | 5,806,710 | 5,698,046 |
| Purchased | **128,774** | 284,886 | 116,866 | 319,580 | 265,608 |
| | **6,369,675** | 6,479,617 | 6,524,340 | 6,126,290 | 5,963,654 |
| Losses & Internal Use | **547,363** | 576,209 | 530,922 | 407,888 | 441,730 |
| Electric Energy Sold | **5,822,312** | 5,903,408 | 5,993,418 | 5,718,402 | 5,521,924 |
| **Energy Sales Billed (Thousand kW.h):** | | | | | |
| Domestic Service | **1,988,127** | 1,904,947 | 1,868,208 | 1,790,077 | 1,755,402 |
| General Service | **1,638,467** | 1,617,079 | 1,573,053 | 1,514,541 | 1,470,427 |
| Industrial Power | **1,904,744** | 2,045,931 | 2,089,092 | 2,071,989 | 1,974,683 |
| Municipalities | **176,331** | 176,752 | 185,203 | 254,880 | 239,509 |
| Unmetered Services | **70,749** | 70,545 | 70,117 | 67,376 | 66,369 |
| **Total In-Province Billed Energy Sales** | **5,778,418** | 5,815,254 | 5,785,673 | 5,698,863 | 5,506,390 |
| Increase in Unbilled Sales | **15,666** | 8,958 | 27,740 | 11,258 | 4,411 |
| Grid Sales | **28,228** | 79,196 | 180,005 | 8,281 | 11,123 |
| **Total Electric Energy Sales** | **5,822,312** | 5,903,408 | 5,993,418 | 5,718,402 | 5,521,924 |
| **Electric Revenue Billed (Thousand $):** | | | | | |
| Domestic Service | **$ 119,294** | $ 111,987 | $ 109,782 | $ 101,029 | $ 85,744 |
| General Service | **101,600** | 97,120 | 94,337 | 87,828 | 75,666 |
| Industrial Power | **73,420** | 74,262 | 73,132 | 69,865 | 57,028 |
| Municipalities | **7,299** | 6,928 | 7,280 | 9,770 | 8,034 |
| Unmetered Services | **7,815** | 7,426 | 7,253 | 7,022 | 6,210 |
| **Total In-Province Electric Revenue** | **309,428** | 297,723 | 291,784 | 275,514 | 232,682 |
| Increase in Unbilled Revenue | **5,741** | 1,040 | 1,335 | 3,390 | 3,689 |
| Grid Sales | **831** | 2,456 | 5,023 | 252 | 671 |
| Deferred Revenue | **—** | — | 6,276 | (6,276) | — |
| **Total Electric Revenue** | **$ 316,000** | $ 301,219 | $ 304,418 | $ 272,880 | $ 237,042 |
| **Average Unit Revenue per kW.h Billed** | | | | | |
| Domestic Service | **6.00¢** | 5.88¢ | 5.88¢ | 5.64¢ | 4.88¢ |
| General Service | **6.20¢** | 6.01¢ | 6.00¢ | 5.80¢ | 5.15¢ |
| Industrial Power | **3.85¢** | 3.63¢ | 3.50¢ | 3.37¢ | 2.89¢ |
| Municipalities | **4.14¢** | 3.92¢ | 3.93¢ | 3.83¢ | 3.35¢ |
| Unmetered Service | **11.05¢** | 10.53¢ | 10.34¢ | 10.42¢ | 9.36¢ |
| All Classifications Combined | **5.35¢** | 5.12¢ | 5.04¢ | 4.83¢ | 4.23¢ |
| **Number of Employees** | **2,521** | 2,568 | 2,548 | 2,578 | 2,568 |
| **Number of Customers** | **334,205** | 328,856 | 323,014 | 310,759 | 303,456 |
| **km of Transmission Lines (69 kV & Over)** | **4,631** | 4,435 | 4,452 | 4,262 | 3,950 |
| **km of Distribution Lines (36 kV & Under)** | **20,812** | 20,536 | 19,741 | 19,440 | 19,153 |
| **Cost of Fuel (Thousand $) — Coal** | **$ 71,021** | $ 55,848 | $ 61,809 | $ 39,376 | $ 31,462 |
| **Oil** | **118,856** | 115,971 | 98,030 | 90,002 | 94,892 |
| **TOTAL** | **$ 189,877** | $ 171,819 | $ 159,839 | $ 129,378 | $ 126,354 |

Like other electric utilities in Canada during 1982-83, Nova Scotia Power Corporation experienced a decline in the system annual peak load and energy requirements. The total annual electrical energy requirements to operate the system totalled 6.34 billion kilowatt hours, a drop of 0.92 per cent from the previous year. The system annual peak load was recorded at 1 115 megawatts, a decline of 8.08 per cent.

The downturn in demand was due primarily to the effect of the recession on industrial energy requirements. For example, a survey of nine industrial accounts indicates their energy usage was 76.55 million kilowatt hours lower during 1982-83. Had industrial accounts remained constant with the previous year, energy requirements would have increased 0.27 per cent due to marginal gains experienced in domestic and commercial loading.

## Energy Sources

Thermal generation produced the major portion of electrical energy, contributing 83.7 per cent to the provincial total; hydro accounted for 14.3 per cent, with the remaining two per cent purchased energy, derived mainly from the New Brunswick Electric Power Commission.

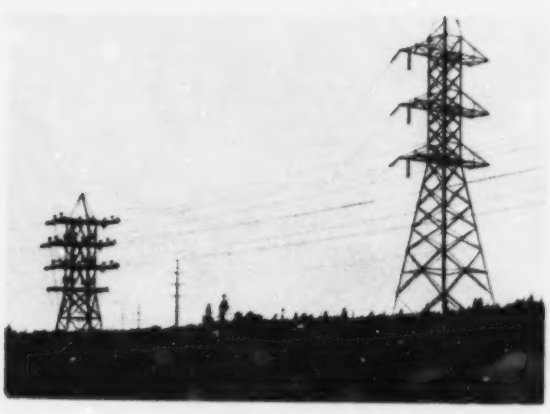
The six thermal plants produced a total of 5 721 259 000 kilowatt hours. Production exceeded the previous year by 283.22 million kilowatt hours or 5.6 per cent, and was the second highest year on record. The coal-fired Lingan generating station led the way with an output of 2 284 120 000 kilowatt hours at a load factor of 81.88 per cent.

With below normal precipitation, hydro generation produced 910 206 000 kilowatt hours, down sharply by 20.7 per cent from 1981-82.

Total energy purchases from New Brunswick amounted to 125 942 000 kilowatt hours, costing $2,985,696.00 or 23.71 mills per kilowatt hour. The bulk of this purchase was in the form of economy energy.

Sales of economy energy to NBEPC amounted to 28 228 000 kilowatt hours at a price of $831,000 or 29.27 mills per kilowatt hour, a profit of 10.79 mills per kilowatt hour.

A new Interconnection Agreement between NSPC and NBEPC was finalized as of January 31, 1983, replacing the 1960 agreement. The new agreement reflects the changes in the respective modes of operation of the two utilities and attempts to maximize the benefits achieved through energy interchange and the sharing of resources.



*4 631 kilometres of transmission lines deliver electrical energy to all sections of the province for distribution to our customers.*

## New Projects

The completion of two new projects has increased system capacity. The Gisborne Lake Dam on the Wreck Cove Hydro Development was put into service on April 30, 1982. The 3.5 megawatt station, acting as a control gate between Gisborne and Wreck Cove lakes, employs a new horizontal Allis-Chalmers tube turbine operating on a head of nine metres, the first of its type in the system. During the year, the unit added 5 315 000 net kilowatt hours to Wreck Cove production.

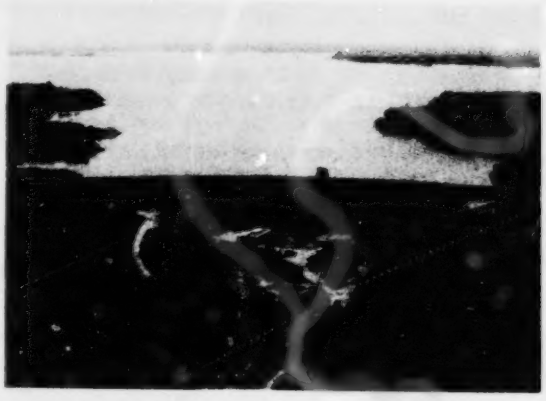
Also completed, was the Bloody Creek Pumping Station. Water from a reservoir formed by damming the creek is pumped over a 44 foot rise of land to the head pond of the Paradise Hydro Plant. Since coming into service on December 1, 1982, the station's continuous discharge of 40 cubic feet per second has increased the energy production of the Paradise Station by approximately 30 per cent.

Work in progress on the Fourth Lake 3.0 megawatt hydro unit on the Sissiboo River indicates it will become operative in the early summer of 1983 with the Annapolis Tidal Power Project being completed by summer, 1983.

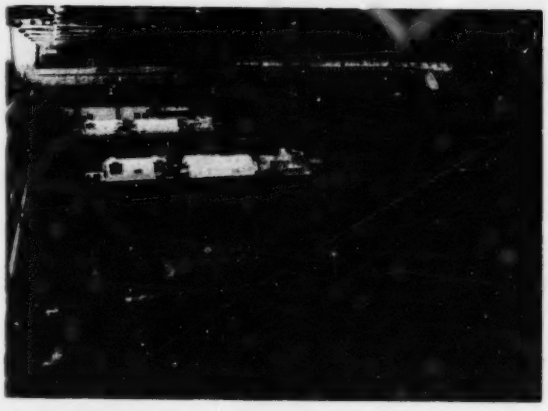
At Annapolis, powerhouse concrete work has been finalized, as well as a major portion of the Interpretive and Control Centres. The Fourth Lake and Annapolis facilities are expected to add approximately 60 million kilowatt hours to the system annually.

Cost estimates were updated during the past year on potential hydro developments or redevelopments at Nictaux, Sheet Harbour, Tusket, Sissiboo, Avon, Harmony, Roseway, Dickie Brook, Indian Brook and Milford Brook.

At Lingan, the construction of Numbers 3 and 4 thermal units is progressing ahead of schedule. The first of the 150 megawatt units is expected to be in operation in February, 1984, and the second in the fall of 1984.



*Fourth Lake hydro development, Digby County.*



*The interior of the Lingan Generating Station with Unit No. 3 in the foreground. This unit will be in service in February, 1984.*

## Transmission and Distribution

The Corporation completed transmission line work totalling $17,200,000 during the fiscal period.

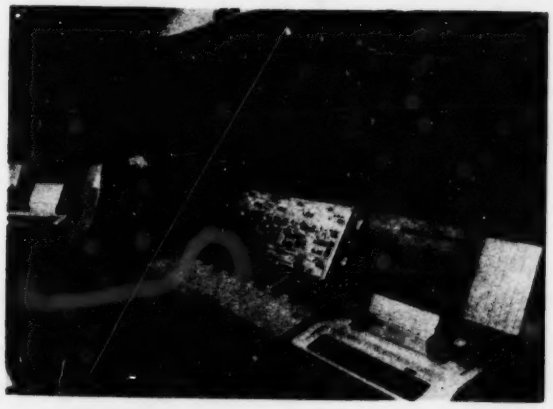
A new 230 kilovolt transmission line, and associated substation between Lingan and Port Hastings, is scheduled to be placed in service in May, 1983. Work to join the Port Hastings and Onslow sections was 50 per cent completed at year end.

Transmission improvements also were made in the Bridgewater-Lunenburg-Riverport area, Weymouth and Saulnierville, Eastern Passage-Woodside, and North Sydney-Sydney Mines.

Capital construction involving distribution plant during the past year amounted to $24.7 million. This figure included $16.2 million required to provide service to approximately 5 000 new customers and to maintain an adequate level of service to existing customers. The remaining $8.5 million was used for replacements, conversions, and improvement of distribution facilities due to overload and deterioration.

Operating and maintenance expenditures amounted to $20.1 million, a figure slightly over budget due principally to an abnormally high frequency of inclement weather conditions.

In terms of field operations, both the consolidation of certain servicing districts and the levels of management within the engineering services groups were part of a continuing program to maximize service and cost benefits.



*The nerve center of a thermal generating station — the control room.*

## Research and Planning

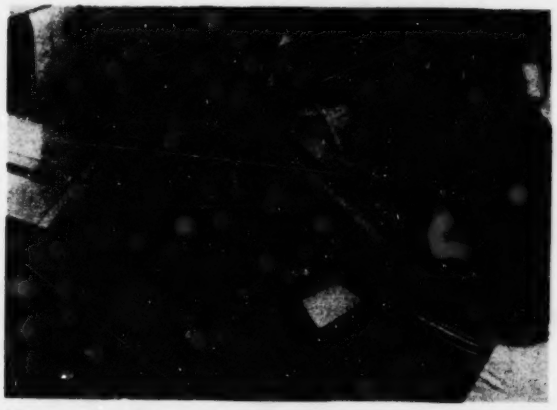
A major research project currently being conducted by the Corporation entitled, "Marginal Cost Based Peak Pricing and Load Control Study", focuses on all key areas of electric utility planning. The study's objectives include the design and implementation of an equitable and economically efficient rate structure, and the evaluation of load management techniques for effectiveness in reducing peak loads and system costs. These objectives are being supported by a unique approach for data gathering and load control which uses microprocessor-based data collectors accessed through the telephone communication network.

The study is designed to examine the complete spectrum of customer classes by consumption and geographic distribution. Many of the components have been completed or are nearing completion: Marginal Cost Analysis, Fully Allocated Cost Study, Comparative Costing and Pricing Study, Appliance Saturation Survey, development of an Econometric Load Forecasting Model, and a preliminary benefit/cost analysis of a Time-of-Use Rate and Load Management Experiment. The load research data collection and analysis module, which is the common thread linking all other modules, is nearing completion of the implementation phase.

Other research during 1982-83 included marketing and environmental studies. Sampling procedures at the Lingan and Trenton fly ash collection facilities continued in order to improve its quality as a potentially saleable by-product. Proposals were requested from firms interested in marketing the product, and companies were selected for both domestic and offshore sales. In order to meet this objective, the fly ash collection facilities at Lingan Units 1 and 2 were modified, and operational problems to the system corrected.

After design and assembly, the atmospheric fluidized bed test rig project at Point Tupper is nearing an operative phase. The project, which investigates corrosion and erosion on in-bed tubes over the long-term, has been funded by the Energy, Mines, and Resources Canada and co-engineered with the Tennessee Valley Authority.

Other ongoing studies continue to focus on both operational efficiency and environmental concerns, particularly on the impact of increased coal conversion.



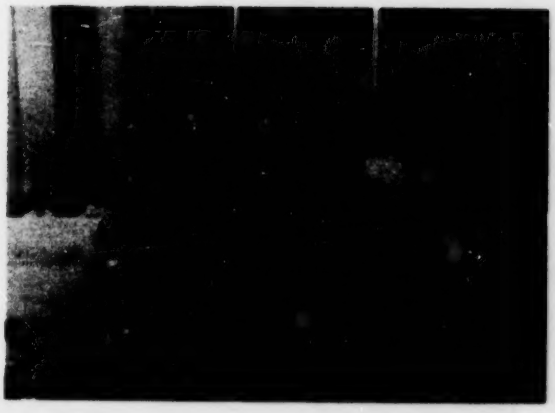
*Monitoring signals on the data collectors used in the Load Research project.*

## Corporate Planning

A major development during the past year was the production and approval of the Corporation's first Corporate Strategic Plan. The document, supported by eight position papers, provided a corporate perspective on the desired direction senior management would take on certain strategic issues.

The plan was approved by the Planning Committee, a group composed of the Chairman, President and the Vice Presidents, and presented to the Board of Directors, where it was approved and adopted.

Acting as a guide to operations and fiscal planning for the next five years, the plan describes the Corporation's mandate as meeting the need of Nova Scotia for electric service at an acceptable standard of reliability, and at the lowest long-term cost. In terms of public purpose, the Corporation's secondary role is to service the broad social and economic interests of Nova Scotia as defined by the provincial government.



*Word processing centre, a major part of the Corporation's new Office Management System.*

## Employees

The Corporation's safety themes for 1982-83 — "Participate" and "Make Safety A Way of Life" — resulted in reductions in the frequency and severity of injury among employees. In recognition for having reduced the work injury frequency rate by 44 per cent over the previous three years, the Corporation earned a Canadian Electrical Association Safety Achievement Award.

The three collective agreements negotiated during the year were all within the provincial government's wage restraint guidelines.

The Corporation also implemented a revised salary administration program for all non-unionized positions, focused attention on the development of a Performance Evaluation System and the preparation of the Corporation's first Human Resources Strategic Plan.

Employee involvement in community-related activities continued on a high level. The Corporation's employees charitable fund raised over $43,000 last year to help various charities and agencies throughout the province.

## Customer Services

The number of residential customer accounts approached the 300 000 mark at year end, as 5 189 residential customers were added to the system. Of these 3 871, or 74.6%, were all-electric.

The National Energy Efficient Home Program participation was actively maintained by the Corporation. The Energy Efficient standard has become well recognized and accepted by new home buyers throughout the province.

This program and the Corporation's "Wise and Efficient Use of Electricity in the Home" were promoted successfully at exhibitions and consumer-sponsored presentations throughout the province. Over 9 000 people attended the "Wise Use" demonstrations at 33 locations.

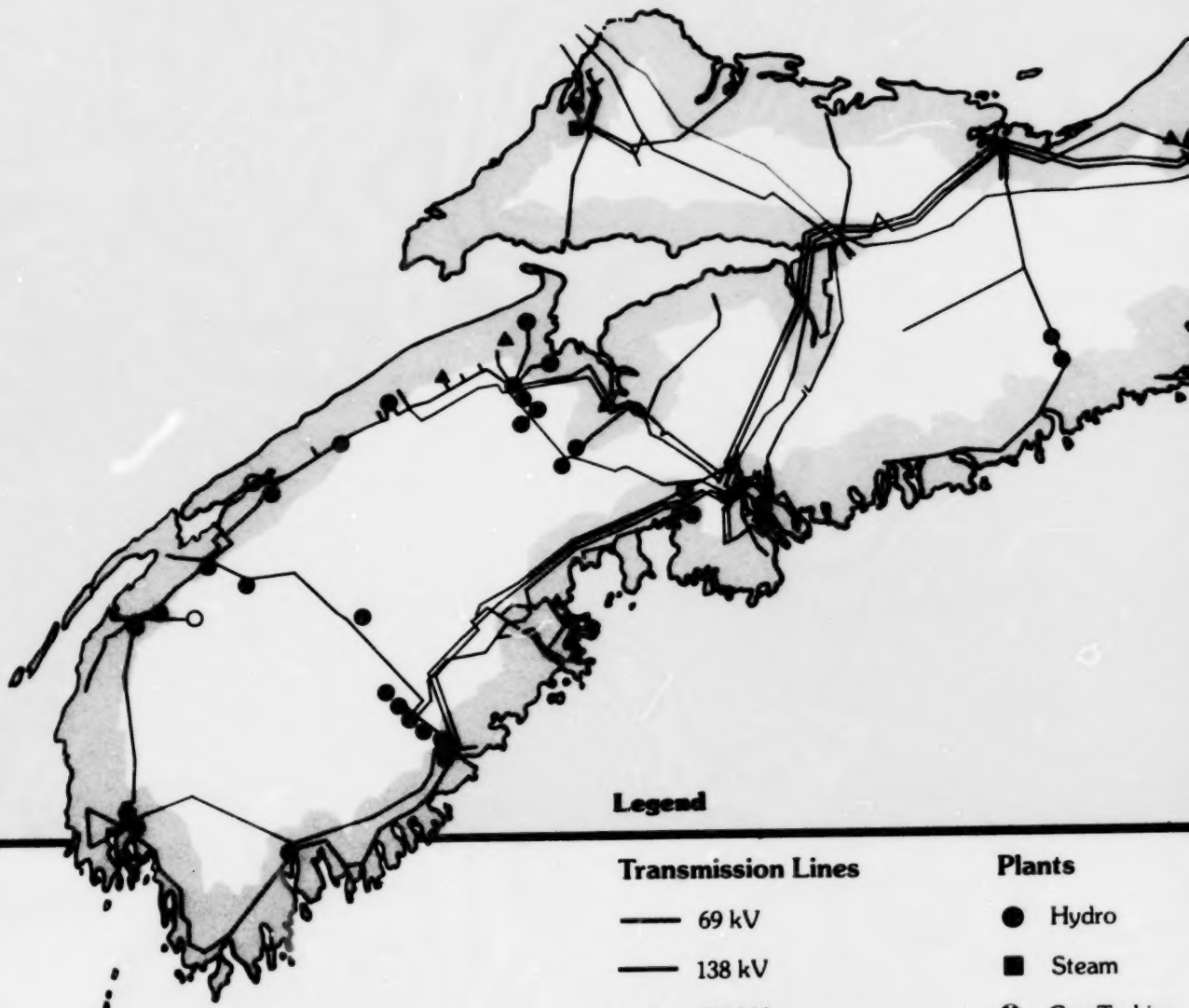
During the past year the Corporation entered into an agreement with Energy, Mines and Resources Canada to administer grant applications for electric conversions under the Canadian Oil Substitution Program. In Nova Scotia, thus far, only heat pumps are eligible for grants and the Corporation has processed 34 such applications.

The number of electric heat designs prepared by Energy Management staff continued on the upswing. Additionally, home energy audits were provided to a large number of customers and information was provided for home management of heating, lighting and appliances.

*The importance of safety in the Corporation is recognized by awards to employees throughout the province. Representatives from the St. Margaret's Hydro System received the President's Award from Mr. Comeau.*

## System Map

nova scotia power corporation



**Legend**

**Transmission Lines**

- 69 kV
- 138 kV
- 230 kV
- 345 kV

**Plants**

- Hydro
- Steam
- Gas Turbine
- Wind Turbine

▲ Municipal Utilities

**Under Construction**

○ Hydro (Fourth Lake, Annapolis Tidal Power)

□ Steam (Lingan)

## Generation Statistics

(for the twelve month period ended March 31, 1983)

| | Installed Capacity in kW | 1982-83 Generation (kW.h × 1000) |
|---|---|---|
| **STEAM** | | |
| Tufts Cove | 350,000 | 1,252,142 |
| Lingan | 300,000 | 2,284,120 |
| Point Tupper | 230,750 | 945,611 |
| Trenton | 210,000 | 1,045,211 |
| Water Street | 165,000 | — |
| Glace Bay | 96,000 | 179,387 |
| Maccan | 15,000 | 14,788 |
| | 1,366,750 | 5,721,259 |
| **GAS TURBINE** | 168,575 | 1,559 |
| **HYDRO** | | |
| Total 31 Plants | 358,402 | 910,206 |
| **WIND TURBINE** | 280 | 3 |
| **TOTAL CAPACITY** | 1,894,007 | |
| **TOTAL GENERATION** | | 6,633,027 |
| Less: Station Service | | 392,126 |
| **NET GENERATION** | | 6,240,901 |
| Purchases | | 128,774 |
| Inter-Provincial Sales (to NBEPC) | | (28,228) |
| **NET REQUIREMENT** | | 6,341,447 |